

regarding claims 4 and 14 to replace Windrem with Kassatly (pages 10-11 of the Office Action mailed June 28, 1999). Accordingly, this response inserts "[sic, Kassatly]" after the Examiner's invocation of Windrem for the rejection of claims 4 and 14.

Information Disclosure Statement

In prior responses, the Examiner has been requested to note consideration of the Other Documents AD-AG. The Examiner has now stated that the Information Disclosure Statement filed March 9, 1998 was considered by the Examiner on September 27, 1998, and has enclosed a copy of a PTO-1449 with that date.

It is noted that such PTO-1449 still lacks a notation of consideration of the Other Documents AD-AG. "An information disclosure statement **shall** be considered by the Office" 37 C.F.R. 1.97(b) (emphasis added). "Examiners **must** consider all citations submitted in conformance with the rules and this section" MPEP § 609 at page 600-112 (emphasis added). "Those citations not considered by the examiner will have a line drawn through the citation" MPEP § 609 at page 600-112. "If a statement fails to comply with [the] requirements as discussed in this section for an item of information, a line should be drawn through the citation to show that it has not been considered. The other items of information listed that do comply with the rules and this section **will be considered** by the Examiner and will be appropriately initialed." MPEP § 609 at page 600-113 (emphasis added).

Therefore, two situations arise regarding IDSs. If an item fails to comply, the Examiner must draw a line through it and provide the appropriate form paragraph. If an item complies, the Examiner must consider it and must initial the form.

The Examiner is respectfully requested to provide a copy of the IDS filed March 9, 1998 in view of these requirements of the CFR and MPEP, with specific reference to the Other Documents AD-AG.

Claim Rejections under 35 U.S.C. § 102

The Examiner rejects claims 1, 7, 10-11 and 17-18 under 35 U.S.C. § 102(e) as being anticipated by Kassatly, U.S. Patent No. 5,790,177.

Regarding claim 1, the Examiner states that Kassatly discloses in Figs. 1, 2 and 3 a digital video tape recorder apparatus and method in which video channels are simultaneously recorded in a recording mode, comprising: (a) the recited receiving means for receiving a data stream in which a plurality of audio data and video data or one of the same are multiplexed in a predetermined order (see the reception process 14 for receiving and processing signals received from the transmitter 12; and col. 18, line 66 through col. 19, line 35); (b) the recited multiplexing/demultiplexing means (see multiplexer 25 and demultiplexer 30; and col. 19, line 36 through col. 20, line 34); and (c) the recited plurality of recording/reproducing means (see channel 1 to channel n storage means 35-39, respectively; and col. 19, lines 49-55). The Examiner further states that Kassatly clearly discloses that multiplexed channels are received by the receiving section of Fig. 1, demultiplexed and stored in storage means 35, 37 and 39. The Examiner still further states that these stored channels are then "selected" ("multiplexed", broadly interpreted) by the selecting channel 50 (multiplexer, broadly interpreted), citing col. 19, lines 55-63.

Regarding claims 7 and 10-11, the Examiner states the features of these are accommodated in the discussion of claim 1.

Further regarding claim 11, the Examiner states that Kassatly discloses disk drives (see col. 6, lines 53-58 and col. 13, line 64 through col. 14, line 3).

Regarding claim 17, the Examiner states the features of this are accommodated in the discussion of claim 7.

Regarding claim 18, the Examiner states the features of this are accommodated in the discussion of claim 1.

In response, the rejection is respectfully traversed. A rejection under § 102 requires the reference to teach each and every claim element. See MPEP § 2131. It is respectfully submitted that Kassatly fails to so teach.

Each claim 1, 7 and 11 recites reproducing each recorded channel and multiplexing the reproduced channels. On the other hand, Kassatly, as understood, teaches the selection of only one channel. See element 50 of FIG. 1; and col. 19, lines 55-63. Thus, only one of Kassatly's n channels is reproduced. The Examiner is respectfully requested to elaborate how the selection of one channel teaches multiplexing.

It is respectfully submitted that the Examiner's proposed "broad interpretation" of Kassatly's selecting channel is too broad. The Examiner must apply to the claim language the broadest **reasonable** meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art. See MPEP § 2111. One dictionary defines "multiplexing" as "the superimposition of multiple signals to make up one signal". See Comprehensive Dictionary of Electrical Engineering 427 (1999) (reproduced at the attached pages A1-A3) (emphasis added). Another dictionary defines "multiplex" as "[t]o interleave or simultaneously transmit two or more messages on a single channel". See IBM Dictionary of Computing 446 (1994) (reproduced at the attached pages A4-A6)

(emphasis added). It is unreasonable for the Examiner to read Kassatly's element 50 as selecting "multiple" or "two or more" when Kassatly teaches that "a particular channel" is selected. See Kassatly at col. 19, line 55.

In addition, Kassatly teaches that the multiplexing it does perform is not performed on the one reproduced channel. See element 25 of FIG. 1 (showing multiplexing **before** demultiplexing and storing, not after). The Examiner is respectfully requested to explain why a "broad interpretation" of "selecting" is used for element 50 of Kassatly when Kassatly itself teaches a multiplexer 25, the operation of which is in conformance with standard dictionary definitions of that term. See Kassatly at Fig. 1 (showing "two or more" or "multiple" channels 1 to n multiplexed to receiver). It is respectfully submitted that if Kassatly did teach that element 50 is a "multiplexer", then Kassatly would have used that term explicitly instead of using some other words ("selecting channel", "decompressing selected channel" and "display selected channel"), because Kassatly clearly is aware of the meaning of multiplexing as evidenced by Kassatly's multiplexer 25.

Furthermore, note that the operations Kassatly performs after storing ("selecting channel", "decompressing selected channel" and "display selected channel") all refer to a singular channel, not "two or more" or "multiple" channels as would comport with standard dictionary definitions of multiplexing.

Thus, it is respectfully submitted that Kassatly fails to anticipate applicant's invention as set forth in claims 1, 7 and 11, and that these claims are therefore allowable.

Furthermore, claim 11 recites disk drives. On the other hand, Kassatly, as understood, teaches "storage" or "memory storage". See FIG. 8, elements 230, 232 and 234; and the specification at col.

20, line 56; col. 21, line 59; and col. 24, line 41. It is respectfully submitted that "storage" and "memory storage" do not teach disk drives.

It is respectfully submitted that the Examiner's assertion that Kassatly discloses disk drives at col. 6, lines 53-58 and col. 13, line 64 to col 14, line 3 is unavailing. The elements must be arranged as required by the claim. See MPEP § 2131. Although these cited sections mention floppy disks, magnetic disks, and optical disks, they fail to teach where these elements are employed in Kassatly. Even assuming that Kassatly anticipates claim 1, Kassatly cannot anticipate claim 11 unless it teaches that the elements 35, 37 and 39 (as used by the Examiner in the rejection of claim 1 to anticipate the recited recording means) are disk drives, as recited in claim 11. Thus, it is respectfully submitted that the rejection of claim 11 under § 102 is improper.

It is respectfully submitted that claims 10 and 17-18 are allowable as claims dependent from claims 1, 11 and 7, respectively, allowable as argued above.

Claim Rejections under 35 U.S.C. § 103

The Examiner rejects claims 2-3, 8-9 and 12-13 under 35 U.S.C. § 103 as being unpatentable over Kassatly in view of Windrem et al., U.S. Patent No. 5,754,730 (hereinafter Windrem).

The Examiner rejects claims 4 and 14 under 35 U.S.C. § 103 as being unpatentable over Kassatly in view of Nakayama et al., U.S. Patent No. 4,947,271 (hereinafter Nakayama).

The Examiner rejects claims 5 and 15 under 35 U.S.C. § 103 as being unpatentable over Kassatly in view of Nakayama, further in view of Morimoto et al., U.S. Patent No. 5,841,941 (hereinafter Morimoto).

The Examiner rejects claims 6 and 16 under 35 U.S.C. § 103 as being unpatentable over Kassatly in view of Nakayama in view of Morimoto, further in view of Windrem.

These rejections are addressed in turn as follows.

Claim 2

The Examiner concedes that Kassatly fails to disclose wherein each of the plurality of recording means adopts a mirror configuration having a plurality of recording apparatuses for recording the same audio and/or video data. The Examiner states that Windrem teaches a digital video recording system employing standard hard disk arrays wherein redundancy is provided through a redundant data controller 99 to handle possible failure of one drive in the array (col. 2, lines 28-40). The Examiner concludes that it would have been obvious to modify Kassatly by realizing Kassatly with the Windrem redundancy system wherein redundancy is provided through a redundant data controller 99 to handle possible failure of one drive in the array.

The Examiner further states that the Examiner has pointed out what each of the prior art references teaches and has indicated how and why these references would have been combined to arrive at the claimed invention. The Examiner also states that the applicant cannot show non-obviousness by attacking the references individually where, as here, the rejection is based on a combination of references. In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). The Examiner still further states that as recognized by applicant, Windrem teaches a digital video recording system employing standard hard disk arrays wherein redundancy is provided through a redundant data controller 99 to handle possible failure of a drive in the array. The Examiner states that Windrem was cited to

establish that it would have been obvious to the artisan to add the teaching of disk drive redundancy (or mirror configuration, as claimed) to Kassatly, which Kassatly lacks, to handle possible failure of one drive in the array. The Examiner further states that the applicant's argument that there has to be a demonstrated need of any "storage" or "memory storage" failures to overcome in order to suggest adding a disk drive redundancy means is irrelevant because it is well known to one of ordinary skill in the art that disk drive failures do occur in a digital video recording system. The Examiner states that a reference must not be considered not only for what it expressly teaches, but also for what it fairly suggests. In re Burkel, 592 F.2d 1175, 201 USPQ 67 (CCPA 1979). The Examiner also states that the artisan is presumed to know something about the art apart from what references literally disclose. In re Jacoby, 309 F.2d 513, 135 USPQ 317 (CCPA 1962). The Examiner yet further states that the conclusion of obviousness may be made from common knowledge and common sense of a person of ordinary skill in the art without specific hint or suggestion in a particular reference. In re Bozek, 416 F.2d 1385, 163 USPQ 545 (CCPA 1969). The Examiner still further states that every reference relies to some extent on knowledge of persons skilled in the art to complement that which is disclosed therein. In re Bode, 550 F.2d 656, 193 USPQ 12 (CCPA 1977). The Examiner concludes that the artisan would have recognized the obviousness of adding disk drive redundancy to Kassatly, and the motivation to combine the references is clearly disclosed in col. 2, line 28-40 of Windrem.

In response, the rejection is respectfully traversed. One requirement of *prima facie* obviousness under § 103 is that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary

skill in the art, to modify the reference or to combine reference teachings. See MPEP § 2143. It is respectfully submitted that the Examiner has failed to provide a sufficient motivation to combine Kassatly and Windrem.

The Examiner has provided a motivation "to handle possible failure of one drive in the array". However, Kassatly teaches "storage" or "memory storage". See FIG. 8, elements 230, 232 and 234; and the specification at col. 20, line 56; col. 21, line 59; and col. 24, line 41. Kassatly fails to teach any drives. The motivation must be logically related to the references combined. Thus, a motivation to overcome drive failures cannot support a motivation to combine Kassatly and Windrem.

Furthermore, the Examiner has failed to point out any teaching in Kassatly, Windrem, or the knowledge generally available to one of ordinary skill in the art at the time of the invention that there are any "storage" or "memory storage" failures that need to be overcome.

In rejecting a dependent claim, the motivation to combine references must be related to the teaching or suggestion of the cited references or the knowledge generally available to one of ordinary skill in the art, not to how the Examiner has interpreted the cited references to read on the parent claim. That is, assume that Claim X recites a dark color, that the Examiner rejects Claim X with Reference A that teaches the color blue, and that this rejection is proper. Further assume that dependent Claim Y recites wherein the dark color is the color purple, and that the Examiner rejects Claim Y with the combination of Reference A in view of a Reference B that teaches the color purple. The Examiner must state that the combination of A in view of B is proper because one of ordinary skill in the art would be motivated to replace blue with purple, and must explain why. Conversely, it is respectfully submitted that the

Examiner cannot state that the combination of A in view of B is proper because one of ordinary skill in the art would be motivated to replace a **dark color** with purple. In such a case the Examiner would be using the disclosed invention ("dark color"), instead of a prior art reference ("blue"), to reject Claim Y. Basing a rejection on the disclosed invention instead of a prior art reference or the knowledge generally available to one of ordinary skill in the art implies that the Examiner is using impermissible hindsight reasoning.

Stating the above example as a more general principle, when Claim X recites a genus, Reference A teaches a species of the genus and Claim Y recites a subgenus of claim X, then Reference B (that teaches a species of the subgenus) can be combined with Reference A with a motivation based on the species of the genus, not based on the genus itself. Or even more generally, just because Reference A anticipates Claim X does not mean that a combination of Reference A in view of Reference B provides a proper motivation that is based on Claim X instead of Reference A, Reference B or the knowledge generally available to one of ordinary skill in the art.

Applying this principle to the present situation, claim 1 recites "recording means" (the genus), the Examiner has rejected this with Kassatly which teaches "memory storage" (assumed species of the genus), and we will assume solely for the purposes of this line of argument that this rejection is proper. Claim 2 recites that each recording means adopts a "mirror configuration" (the subgenus), and assume that Windrem teaches that a disk drive adopts a mirror configuration (assumed species of the subgenus). Therefore, the Examiner must state that the combination of Kassatly in view of Windrem is proper because one of ordinary skill in the art would be motivated to modify the "memory storage" (species of the genus) to a "mirror configuration" (species of the subgenus), and must explain

why. This the Examiner has failed to do. Instead, the Examiner has stated that the motivation is to modify a singular disk drive into multiple disk drives to handle a disk drive failure.

Now turning specifically to one of the Examiner's assertions, the Examiner states that the applicant cannot show nonobviousness by attacking the references individually where, as here, the rejection is based on a combination of references, citing In re Keller. In response, it is respectfully submitted that the Examiner has misconstrued the court's admonition in In re Keller, and that no form of individualized attack on the references has been performed.

In the opinion chiefly relied upon by the Keller court, the CCPA admonished an applicant for repeatedly relying on but one of the two cited references to support an assertion of nonobviousness. See In re Young and Humbert, 403 F.2d 754, 756, 159 USPQ 725, 727-28 (CCPA 1968). Thus, the CCPA merely forbid the omission of any particular reference from the ultimate analysis of non-obviousness. More recently, the Court of Appeals for the Federal Circuit has admonished an applicant for reading and relying upon a reference "in isolation" from the other references relied upon by the Examiner. See In re Merck & Co., Inc., 800 F.2d 1091, 1097, 231 USPQ 375, 380 (Fed. Cir. 1986) (citing In re Keller). It is respectfully submitted that the rule forbidding the attack of references individually permits the separate analyses of each reference, so as long as such analyses are followed by an analysis of "the combined teachings of the references." See In re Young, 927 F.2d 588, 589, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991); In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598-60 (Fed. Cir. 1988).

Simply put, In re Keller does not require a proponent of nonobviousness to analyze and attack all the cited references simultaneously. It merely requires that the ultimate determination of

obviousness be made with respect to all of the cited references, viewed in combination. See In re Stencel, 828 F.2d 751, 754, 4 USPQ2d 1071, 1073 (Fed. Cir. 1987). Thus, In re Keller does not forbid proponents of nonobviousness from ascertaining the meaning of a specific reference, but only forbids the proponent from omitting a specific reference from the analysis.

The above approach and arguments in support of a finding of nonobviousness comply with In re Keller. The meaning of each and every reference relied upon by the Examiner, with no omissions, has been systematically explained. It has then been convincingly argued that each reference -- "read, not in isolation, but for what it fairly teaches in combination with the prior art as a whole" -- demonstrates that the claimed invention is nonobvious and patentable under 35 U.S.C. § 103. See In re Merck & Co., Inc., 800 F.2d at 1097, 231 USPQ 375, 380 (Fed. Cir. 1986). Specifically, it has been pointed out that the Examiner has failed to identify any teaching or suggestion in Kassatly, Windrem or the knowledge generally available to one of ordinary skill in the art that would motivate one of ordinary skill in the art to replace Kassatly's memory storage with Windrem's disk array. Thus, the arguments have been directed toward neither Kassatly nor Windrem individually, but toward their combination (as set forth by the Examiner); specifically, the lack of a convincing motivation to combine Kassatly and Windrem.

Addressing another of the Examiner's assertions, the Examiner states that Windrem was cited to establish that it would have been obvious to the artisan to add the teaching of disk drive redundancy (or mirror configuration, as claimed) to Kassatly, which Kassatly lacks, to handle possible failure of one drive in the array. It is respectfully submitted that such an assertion gains the Examiner

nothing. Windrem itself is directed toward overcoming the failure of one drive with a redundant data controller and an array of drives. However, such teaching fails to suggest a combination with Kassatly, which teaches only a single memory storage per channel. The Examiner has still failed to identify what would fail in **Kassatly** that would support a convincing rationale for one of ordinary skill in the art to be motivated to add the teaching of Windrem. It is respectfully submitted that this defect renders the combination insupportable.

Addressing yet another of the Examiner's assertions, the Examiner states that it is well known to one of ordinary skill in the art that disk drive failures do occur in a digital video recording system. However, this assertion fails to explain what would motivate or suggest to one of ordinary skill to replace one memory storage per channel (as per Kassatly) with an array of disk drives (as per Windrem).

Addressing still another of the Examiner's assertions, the Examiner states that the artisan would have recognized the obviousness of adding disk drive redundancy to Kassatly, and the motivation to combine the references is clearly disclosed in col. 2, line 28-40 of Windrem. However, such teaching merely suggests replacing a single disk drive (which would otherwise be susceptible to failure) with an array of drives. Such teaching fails to address the critical point of how one of ordinary skill in the art would be motivated to combine **Kassatly** (which teaches memory storage, not disk drives) and Windrem.

Therefore, it is respectfully submitted that the Examiner has failed to make a prima facie showing of obviousness, and that claim 2 is allowable over Kassatly in view of Windrem.

Claim 3

The Examiner states that Windrem further discloses wherein each of said plurality of recording means adopts an array configuration in which a plurality of recording apparatuses are connected in parallel. The Examiner further states that Windrem teaches in Fig. 1 a disk array 12 comprising an array of disk drives wherein the array of disk drives provides sufficient bandwidth to record or play digitized video signals, allowing random access to video data (see Fig. 1; disk array 12; col. 1, lines 15-32; and col. 3, lines 31-52). The Examiner concludes that it would have been obvious to one of ordinary skill in the art to modify Kassatly by adding the disk array of Windrem to Kassatly since an array of disk drives provides sufficient bandwidth to record or play digitized video signals, allowing random access to video data.

In response, the rejection is respectfully traversed. The fact that references can be combined or modified is not sufficient to establish prima facie obviousness. See MPEP § 2143.01. It is respectfully submitted that the Examiner has merely provided a statement of operability.

The Examiner has given a motivation to add a disk array "since an array of disk drives provides sufficient bandwidth to record or play digitized video signals, allowing random access to video data". This is merely a statement of operability. The Examiner has not pointed to a deficiency in Kassatly that would be cured by such an addition. The Examiner is respectfully requested to identify what in Kassatly, Windrem, or the knowledge generally available to one of ordinary skill in the art would motivate or suggest to one of ordinary skill in the art to combine Kassatly and Windrem.

The reason this element of the prima facie case is called the "motivation to combine" is that there must be some missing element

or function that calls out for the combination or modification. Otherwise it is difficult to set forth a convincing rationale for one of ordinary skill to be motivated or suggested to make the combination, and it would appear that the Examiner is merely using the claims as a template. Thus, it is respectfully submitted that the Examiner has failed to make a prima facie showing of obviousness, and that claim 3 is allowable over Kassatly in view of Windrem.

Claims 8-9 and 12-13

Regarding claim 8, the Examiner states that Windrem discloses wherein the demultiplexed each one is duplicated on more than one recording medium to perform backup of the demultiplexed each one (see redundant data controller 99; and col. 2, lines 28-40).

In response, the rejection is respectfully traversed. One requirement of prima facie obviousness under § 103 is that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. See MPEP § 2143.

The Examiner has totally failed to provide any motivation to combine Kassatly and Windrem. The Examiner has merely provided a statement that the claim elements are met. It is respectfully submitted that the Examiner has failed to make a prima facie showing of obviousness, and that claim 8 is allowable over Kassatly in view of Windrem.

Regarding claims 9 and 12-13, the Examiner states that the claimed features are accommodated in the above discussions of claims 3, 2 and 3, respectively.

In response, the rejections are respectfully traversed. It is respectfully submitted that claims 9 and 12-13 are allowable for the same reasons given above regarding claims 3, 2 and 3, respectively.

Claims 4 and 14

The Examiner concedes that Windrem [sic, Kassatly] fails to explicitly disclose wherein control data is multiplexed on the data stream, the demultiplexing means demultiplexes the control data multiplexed on the data stream, and provision is made for controlling a recording operation of the recording means and reproduction operation of the reproducing means based on the demultiplexed control data. The Examiner states that Nakayama teaches in Fig. 7 a recording/reproducing means that in the recording process multiplexes recorded data signals to which ID data (control data) has been added. The Examiner further states that in the reproduction process, these multiplexed data signals are later reproduced, demultiplexed and the ID data extracted (see col. 7, line 34 to col. 10, line 19). The Examiner also states that it is desirable to record data signals with their respective control data (e.g., ID data), and then multiplex the data signals with the control data in order to facilitate the recovery of the data signals during the reproduction process when the data signals are demultiplexed. The Examiner still further states that to make these processes efficient there is inherently a control means that controls, based on the control data, the recording/reproduction of the data signals. The Examiner concludes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Windrem [sic, Kassatly] by realizing Windrem [sic, Kassatly] with a means to add control data to data signals, during the recording process, before multiplexing, as taught by Nakayama, in order to facilitate the

recovery of the data signal, during the reproduction process when the data signals are reproduced and demultiplexed. The Examiner also concludes that it would have been obvious to realize Windrem [sic, Kassatly] with a control means in order to make these controlled recording/reproduction processes efficient.

Regarding claim 14, the Examiner states that the features of this claim is accommodated in the above discussion of claim 4.

The Examiner further states that regarding claims 4 and 14, Nakayama clearly teaches that the ID data 137a to 137f (control data) are added during data processing for recording. See col. 7, lines 23-66. The Examiner also states that when Kassatly is modified with the teaching of Nakayama, it would have been obvious that the recorded data would be reproduced before being "multiplexed" by the channel selector 50 of Kassatly.

In response, the rejection is respectfully traversed. The Examiner has stated that Nakayama teaches "add[ing] control data to data signals, during the recording process, before multiplexing . . . to facilitate the recovery of the data signal, during the reproduction process when the data signals are . . . demultiplexed". However, claim 4 recites that the input data stream includes multiplexed control data. Claim 1 recites that the input data is demultiplexed, recorded, reproduced, and multiplexed. Thus, claims 1 and 4 set forth that the control data is demultiplexed before the recording process, not added during the recording process as given by the Examiner's asserted teaching of Nakayama.

The Examiner has responded that "Nakayama clearly teaches that the ID data 137a to 137f (control data) are added during data processing for recording." Such a response highlights how the proposed combination of Kassatly and Nakayama fails to meet all the recited elements of claim 4. Claim 4 explicitly sets forth that the

input data stream (which is provided to the demultiplexing means as set forth in claim 1) includes multiplexed control data. It is respectfully submitted that such proposed combination, in which the control data do not appear until recording, cannot meet the recited claim elements setting forth that the control data is demultiplexed, where the demultiplexing occurs before the recording.

In addition, it is respectfully questioned how in Nakayama the control data can control the recording means when it is not added until the recording process is under way, as asserted by the Examiner.

Furthermore, claims 1 and 4 set forth that the recorded data is reproduced before the multiplexing process, not that the data is demultiplexed during the reproduction process as given by the Examiner's asserted teaching of Nakayama. Thus, it is respectfully submitted that the Examiner's asserted teaching of Kassatly in view of Nakayama fails to teach or suggest all the claim elements.

Regarding claim 14, it is respectfully submitted that it is allowable for the same reasons given above regarding claim 4.

Claims 5 and 15

The Examiner concedes that Kassatly and Nakayama fail to disclose wherein at least one of the plurality of recording means and the reproducing means further performs operation in synchronization with a synchronization signal of the data stream. The Examiner states that Morimoto teaches in Fig. 9 an input encoded data stream which is first input to a recording block formatter 28. The Examiner further states that a unit information generator 27 retrieves unit information (sync. signal) from the input encoded data stream, so as to output the information to the recording block formatter 28 which formats the data stream so that the number M of successive

transport packets are recorded as the number N of successive recording blocks. The Examiner still further states that a reproducing head 9 outputs a reproduced signal from the recording medium 8. The Examiner also states that a reproducing processor 30 restores the data stream by performing a reproduction processing for the output reproduced signal (see col. 13, lines 23-65). The Examiner further states that here Morimoto teaches extracting the sync signal from an input encoded data stream and using the extracted sync signal to convert M successive transport packets to N successive recording packets and recording the converted signal on a recording medium. The Examiner also states that a reproducing system restores and reproduces the restored data stream based on the sync signal. The Examiner yet further states that the sync signal facilitates proper recording and reproducing of the data stream. The Examiner concludes that it would have been obvious to one of ordinary skill in the art to further modify Kassatly by realizing Kassatly with a means to provide recording/reproducing sync signal in order to facilitate proper recording and reproducing of a data stream.

In response, it is respectfully submitted that claims 5 and 15 are allowable as claims dependent from claims 4 and 14, respectively, which latter claims are allowable as explained above.

Claims 6 and 16

The Examiner concedes that Kassatly, Nakayama and Morimoto fail to disclose a plurality of audio and/or video data recording and reproducing apparatuses being connected in parallel, and wherein the input data stream and the output data stream are input and output among the plurality of audio and/or video data recording and reproducing apparatus. The Examiner states that

Windrem teaches in Fig. 1 a disk array 12 comprising an array of disk drives which provide sufficient bandwidth to record or play digitized video signals, allowing random access to video data (see Fig. 1, disk array 12; col. 1, lines 15-32; and col. 3, lines 31-52). The Examiner concludes that it would have been obvious to one of ordinary skill in the art to modify Kassatly by adding the disk array of Windrem to Kassatly since an array of disk drives provides sufficient bandwidth to record or play digitized video signals, allowing random access to video data.

The Examiner further states that the applicant argues, with respect to claims 6 and 16, the Examiner's motivation to combine Kassatly and Nakayama. The Examiner further states that this argument is similar to the applicant's argument with respect to claims 8-9 and 12-13. The Examiner responds by referring the applicant to the Examiner's response to the applicant's similar argument with respect to claims 8-9 and 12-13 above. The Examiner further states that the applicant argues that the Examiner fails to address the "components" of an "audio and/or video data recording and reproducing apparatus" which the applicant now interprets to include receiving means, demultiplexing means, a plurality of recording means, a reproducing means and a multiplexing means. The Examiner disagrees, citing claim 6: "An audio and/or video data recording and reproducing apparatus according to claim 5 further comprising a plurality of audio and/or video data recording and reproducing apparatuses being connected in parallel, wherein said input data stream and said output data stream are input and output among said plurality of audio and/or video data recording and reproducing apparatuses". The Examiner asserts that the preamble of claim 6 is accommodated in the discussions of claim 1 on which

claim 6 is remotely dependent, and that Windrem is applied to address the "further comprising" portion of claim 6.

The Examiner states that the same response is true for claim 16.

In response, the rejections are respectfully traversed.

First, the fact that references can be combined or modified is not sufficient to establish prima facie obviousness. See MPEP § 2143.01. The Examiner has given a motivation to add a disk array "since an array of disk drives provides sufficient bandwidth to record or play digitized video signals, allowing random access to video data". This is merely a statement of operability. The Examiner has not pointed to a deficiency in Kassatly and Nakayama that would be cured by such an addition. The Examiner is respectfully requested to identify what in Kassatly, Windrem, or the knowledge generally available to one of ordinary skill in the art would motivate or suggest to one of ordinary skill in the art to add Windrem to the existing combination of Kassatly, Nakayama and Morimoto.

The reason this element of the prima facie case is called the "motivation to combine" is that there must be some missing element or function that calls out for the combination or modification. Otherwise it would appear that the Examiner is merely using the claims as a template. Thus, it is respectfully submitted that the Examiner has failed to make a prima facie showing of obviousness.

Second, it is respectfully submitted that the proposed combination fails to teach or suggest all the claim elements. Claim 6 recites "a plurality of audio and/or video data recording and reproducing apparatuses". An "audio and/or video data recording and reproducing apparatus" comprises a receiving means, a demultiplexing means, a plurality of recording means, a reproducing means, and a multiplexing means. See claim 1. On the other hand,

the Examiner has merely asserted that Windrem teaches a disk array. It is respectfully submitted that a disk array is not a plurality of audio and/or video data recording and reproducing apparatuses. Thus, it is respectfully submitted that the Examiner has failed to make a prima facie showing of obviousness.

In response to the above argument, that Examiner states that the applicant "now interprets" the audio and/or video data recording and reproducing apparatus to include receiving means, demultiplexing means, a plurality of recording means, a reproducing means and a multiplexing means; and that Windrem is applied to address the "further comprising" portion of claim 6. The Examiner is respectfully reminded that one can be one's own lexicographer. See MPEP § 2111.01. It is respectfully submitted that this is not a "new interpretation" of the words, but an interpretation that has been explicit in claim 1 since the present application was filed. Therefore, the Examiner must answer three questions: (1) What is an "audio and/or video data recording and reproducing apparatus"? (2) What does Windrem teach? (3) Is Windrem's teaching an "audio and/or video data recording and reproducing apparatus"?

Regarding the first question, and recognizing that one may be one's own lexicographer, an "audio and/or video data recording and reproducing apparatus" is clearly set forth in claim 1 as comprising a receiving means, a demultiplexing means, a plurality of recording means, a reproducing means and a multiplexing means. The Examiner has identified nothing in the specification that contradicts this definition. The Examiner has not stated that this definition is repugnant to any well-known usage of the term. Thus, this definition must be accepted by the Examiner.

Regarding the second question, the Examiner has asserted that Windrem teaches in Fig. 1 a disk array 12 comprising an array of disk drives.

Regarding the third question, it is respectfully submitted that Windrem's teaching is not an "audio and/or video data recording and reproducing apparatus". The Examiner has conceded that the existing combination of Kassatly, Nakayama and Morimoto fails to teach or suggest this element; yet the Examiner has failed to identify any receiving means, demultiplexing means, reproducing means or multiplexing means in Windrem.

Therefore, it is respectfully submitted that claim 6 is allowable over Kassatly and Nakayama in view of Windrem. It is respectfully submitted that claim 16 is allowable for the same reasons.

Conclusion

In view of the above, it is respectfully submitted that the application is now in condition for allowance. The Examiner's reconsideration and further examination are respectfully requested.

Respectfully submitted,
LIMBACH & LIMBACH L.L.P.

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By: Charles L. Hamilton
Charles L. Hamilton
Reg. No. 42,624

Attorneys for Applicant